


226 2 copy acct 13-11-53

MUNICIPALITY OF SINGAPORE



1950

Health Department Report



Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

<https://archive.org/details/b31753206>

CHAPTER V

HEALTH DEPARTMENT

WHEN reading this report it must be borne in mind that the rates quoted are uncorrected for 'inward' or 'outward' transfers unless otherwise stated; that patients from outside the town entering hospitals and other institutions providing medical facilities in the town adversely affect our Death and Infectious Diseases rates; that the age and sex distribution of our population is still abnormal; and that the number of deaths shown as due to the various diseases must necessarily be inaccurate, as something like thirty per cent of the persons who die in Singapore have had no medical advice or treatment before death, and the causes of their deaths have had to be surmised without the aid of post-mortems.

In my 1948 and 1949 reports, the estimated mid-year population on which the statistics were based, were computed, *faute de mieux*, by the mere addition of the excess of births over deaths, from mid-year to mid-year, to the estimated mid-year population for the previous year—no allowances being made for the effects which migration had on our populations for these years.

The Registrar of Statistics has now supplied us with figures for our estimated mid-year populations in 1948, 1949, and 1950. In the computation of these figures allowances were made for the probable effects which migration had on our populations for these years.

The estimated mid-year population on which the statistics in this report are based is the Registrar of Statistics' figure which is 730,443.

For the purpose of comparing the rates based on population for this year with those for last, revised rates for last year based on the Registrar of Statistics' population figure for 1949 have been prepared. These revised rates for 1949, and not the rates published in my 1949 report have been used throughout this report and are truly comparable.

NOTIFIABLE DISEASES AND OTHER INFECTIOUS AND PARASITIC DISEASES

Excluding Tuberculosis, 1,182 cases of Infectious Diseases in persons ordinarily resident within the Municipal Area were notified during the year as against 1,025 in 1949 and 918 in 1948.

TUBERCULOSIS

3,684 cases of Tuberculosis in Municipal residents and 541 in non-residents; that is 4,225 cases in all were notified during the year. 65 of these cases were not ordinarily resident in the Colony.

As will be seen from the table which follows approximately half of the notifications of this disease were received from S.A.T.A. and Tan Tock Seng Hospital Anti-Tuberculosis Clinics:

NOTIFIED BY	S.A.T.A.	T.T.S. Clinic	Private Practitioners	Total
Number of cases notified ..	1,478	717	2,030	4,225

NOTIFICATIONS OF ALL TYPES OF TUBERCULOSIS, 1950
(MUNICIPAL RESIDENTS ONLY)

	AGE GROUPS							
	0-5 years	5-10 years	10-15 years	15-20 years	20-45 years	Over 45 years	Age not stated	Total
Males	127	11	9	87	2,013	391	5	2,643
Females	119	12	24	39	633	212	2	1,041
Total	246	23	33	126	2,646	603	7	3,684

The Tuberculosis notification rate in Municipal residents was 5.04 per 1,000 of the population as against 6.01 (revised rate) in 1949.

The number of deaths certified as due to all forms of this disease was 1,449 as against 1,529 in 1949 and the death rate was 1.984 per 1,000 of the population as against 2.162 (revised figure) in 1949.

SMALL-POX, PLAGUE AND CHOLERA

There was no case of these diseases during the year.

DIPHThERIA

224 cases of Diphtheria in Municipal residents and 49 in non-residents were notified during the year as against 241 and 46 respectively in 1949.

MORTALITY RATES FROM DIPHThERIA 1949 AND 1950

	1950	1949
Cases notified	273	287
Deaths	37	53
Mortality rate	13.6%	18.4%

INFANTS AND TODDLERS IMMUNISED AGAINST DIPHThERIA
IN 1949 AND 1950

Immunised against	1950	1949
Diphtheria alone	6,163	1,602
Diphtheria and Whooping Cough	3,238	3,976
Total	9,401	5,578

NOTIFIABLE DISEASES

The following Table shows the number of Cases notified in Persons who were stated to be ordinarily Resident within the Municipal Area in 1950 and in the Previous Five Years (excluding the Japanese Occupation period)

Year	Small-pox	Plague	Cholera	Typhoid Fever	Para-Typhoid Fever	Diphtheria	Cerebro-Spinal Fever	Typhus Fever (1)	Scarlet Fever	Leprosy	Poliomyelitis (2)	Anthrax	Puerperal Fever	Erysipelas	Chicken Pox	Total	Tuberculosis	Total
1941	..	..	..	273	9	331	20	9	1	138	1	..	34	16	329	1,161	3,362	4,523
1942/45	..	..	..	87	6	121	7	10	1	50	126	..	26	5	183	709	3,249	3,958
1946	87	..	..	70	1	131	16	8	..	81	1	..	20	3	317	690	3,412	4,102
1947	42	..	..	70	2	193	11	16	..	121	120	..	38	13	329	918	4,078	4,996
1948	5	..	..	61	1	241	11	24	..	158	54	..	53	20	402	1,025	4,247	5,272
1949	..	..	..												
Average for 5 years	26.8	..	..	112.2	3.8	203.4	13.0	13.4	0.4	109.6	60.4	..	34.2	11.4	312.0	..	3,669.6	4,570.2
1950	..	..	..	129	..	224	6	13	..	180	72	..	82	10	466	1,182	3,684	4,866

(1) Under the heading of Typhus are included Tsutsugamushi or Scrub Typhus of Malaya (Mite Borne) and Flea Borne, Urban Type Tropical Typhus. Louse Borne Typhus has not been seen in Singapore.

(2) Acute Poliomyelitis was made a notifiable Infectious Disease 1st November, 1941 (*Gazette* Notification No. 263 of 1st November, 1941).

INCIDENCE OF THE NOTIFIABLE INFECTIOUS DISEASES BY RACE, 1950

	Typhoid Fever	Diphtheria	Chicken Pox	Puerperal Fever	Polio- myelitis	Cerebro- Spinal Fever	Tuberculosis	Para-Typhoid Fever	Small-pox	Typhus Fever	Erysipelas	Leprosy	Total
Europeans ..	— (—)	2 (—)	3 (—)	— (—)	8 (—)	— (—)	5 (4)	— (—)	— (—)	— (—)	— (—)	1 (—)	19 (4)
Eurasians ..	— (2)	3 (—)	31 (6)	— (—)	— (1)	— (—)	25 (2)	— (—)	— (—)	— (—)	— (—)	— (—)	59 (11)
Chinese ..	102 (8)	206 (45)	203 (15)	35 (3)	58 (14)	6 (1)	3,151 (462)	— (—)	— (—)	4 (3)	8 (5)	158 (77)	3,931 (633)
Malays ..	13 (—)	6 (3)	39 (13)	37 (—)	— (—)	— (—)	230 (31)	— (—)	— (—)	— (—)	1 (—)	8 (4)	334 (51)
Indians ..	14 (5)	6 (1)	181 (30)	10 (—)	6 (1)	— (—)	247 (37)	— (—)	— (—)	9 (2)	1 (—)	13 (5)	487 (81)
Others ..	— (—)	1 (—)	9 (—)	— (—)	— (—)	— (—)	26 (5)	— (—)	— (—)	— (—)	— (—)	— (—)	36 (5)
Total ..	129 (15)	224 (49)	466 (64)	82 (3)	72 (16)	6 (1)	3,684 (541)	— (—)	— (—)	13* (5)†	10 (5)	180 (86)	4,866 (785)

Remarks:—(1) The figures not in brackets are of cases notified in persons ordinarily resident in the Municipal Area only.

(2) The figures in brackets are imported cases and cases from Rural Board treated in hospitals or institutions in the Municipal Area but not ordinarily resident in the Municipal Area.

* 10 flea borne and 3 mite borne.

† 2 flea borne and 3 mite borne.

Month	Diphtheria	Chicken Pox	Puerperal Fever	Polio- myelitis	Cerebro- Spinal Fever	Tuberculosis	Para-Typhoid Fever	Small-pox	Leprosy	Typhus Fever	Erysipelas	Total
January ..	14	39	5	2	1	286	—	—	12	3	1	368
February ..	(1)	(6)	(—)	(—)	(—)	(54)	(—)	(—)	(6)	(—)	(—)	(69)
March ..	19	42	5	—	1	197	—	—	10	1	—	318
April ..	(4)	(1)	(—)	(—)	(—)	(13)	(—)	(—)	(5)	(—)	(—)	(27)
May ..	17	49	10	1	2	425	—	—	20	—	3	555
June ..	(5)	(4)	(—)	(—)	(—)	(65)	(—)	(—)	(10)	(1)	(—)	(90)
July ..	12	35	5	—	—	273	—	—	14	—	—	356
August ..	(1)	(2)	(—)	(—)	(—)	(30)	(—)	(—)	(6)	(—)	(1)	(41)
September ..	16	39	10	—	—	367	—	—	21	1	1	461
October ..	(3)	(2)	(1)	(—)	(—)	(52)	(—)	(—)	(7)	(—)	(—)	(65)
November ..	10	24	9	2	1	301	—	—	16	1	1	368
December ..	(3)	(2)	(—)	(—)	(1)	(39)	(—)	(—)	(9)	(2)	(—)	(56)
Total ..	17	19	7	—	1	356	—	—	20	—	1	426
	(4)	(2)	(—)	(—)	(—)	(52)	(—)	(—)	(7)	(—)	(1)	(66)
	13	21	7	2	—	262	—	—	14	1	—	326
	(6)	(6)	(—)	(—)	(—)	(45)	(—)	(—)	(6)	(2)	(—)	(65)
	22	37	9	3	—	306	—	—	10	1	2	397
	(3)	(13)	(1)	(—)	(—)	(40)	(—)	(—)	(9)	(—)	(—)	(67)
	25	53	6	11	—	353	—	—	14	—	—	471
	(9)	(6)	(1)	(1)	(—)	(58)	(—)	(—)	(6)	(—)	(1)	(83)
	19	55	9	26	—	315	—	—	13	4	1	445
	(4)	(7)	(—)	(8)	(—)	(60)	(—)	(—)	(10)	(—)	(1)	(90)
	35	53	—	25	—	243	(—)	(—)	16	1	—	375
	(6)	(13)	(—)	(7)	(—)	(33)	(—)	(—)	(5)	(—)	(1)	(66)
Total ..	224	466	82	72	6	3,684	—	—	180	13*	10	4,866
	(49)	(64)	(3)	(16)	(1)	(541)	(—)	(—)	(86)	(5)†	(5)	(785)

Remarks:—(1) The figures not in brackets are of cases notified in persons ordinarily resident in the Municipal Area only.
(2) The figures in brackets are imported cases and cases from Rural Board treated in hospitals or institutions in the Municipal Area but not ordinarily resident in the Municipal Area.

* 10 flea borne and 3 mite borne.

† 2 flea borne and 3 mite borne.

TYPHOID

129 (+15 in non-residents) cases were notified as against 61 (+30 in non-residents) cases in 1949.

Early in the year there was a sharp rise in the number of Typhoid cases notified in Municipal residents. 5 were notified in January, 43 in February. Most of these cases were in school children attending schools in the south side of the town.

As we had some reason to suspect that unlicensed hawkers, (selling ice-cream which had neither been pasteurised nor packed in sealed packets) were the most probable source of the infection, concerted action was taken with the Town Cleansing Department to stop the sale of such produce, following which, there was a sharp decline in the number of cases notified; 28 cases were notified in March, 12 in April, 6 in May, and 3 in June.

POLIOMYELITIS

95 cases of 'suspected Poliomyelitis' were notified during the year. Of these 72 in Municipal residents and 16 in residents from outside the Municipal Area were later confirmed as being genuine cases of Poliomyelitis e.f. 54 confirmed cases in Municipal residents and 20 in non-residents in 1949. There were 14 deaths from the disease against 2 in 1949.

PERCENTAGE OF PARALYTIC AND NON-PARALYTIC POLIO
CASES TREATED AT MIDDLETON HOSPITAL IN 1949 AND 1950

	1950	1949
<i>Total number of cases treated at Middleton Hospital ..</i>	81	68
Paralytic cases	74	63
Non-paralytic cases	7	5
Percentage Paralytic cases	91.4%	92.7%

Only 10 cases of this disease were notified between 1st January and the end of September. From then on until the end of the year there was a marked increase in the incidence of the disease. 12 cases were notified in October, 34 in November and 32 in December. Most of these cases were in Chinese children under five years of age.

5 of the 81 confirmed cases admitted to Middleton Hospital had to be treated in respirators for periods varying from 1½ to 72 hours. Of the 5 cases so treated 4 proved fatal in spite of their having been treated in iron lungs.

LEPROSY

266 cases (180 in Municipal residents) of Leprosy were notified as against 222 (158 in Municipal residents) in 1949.

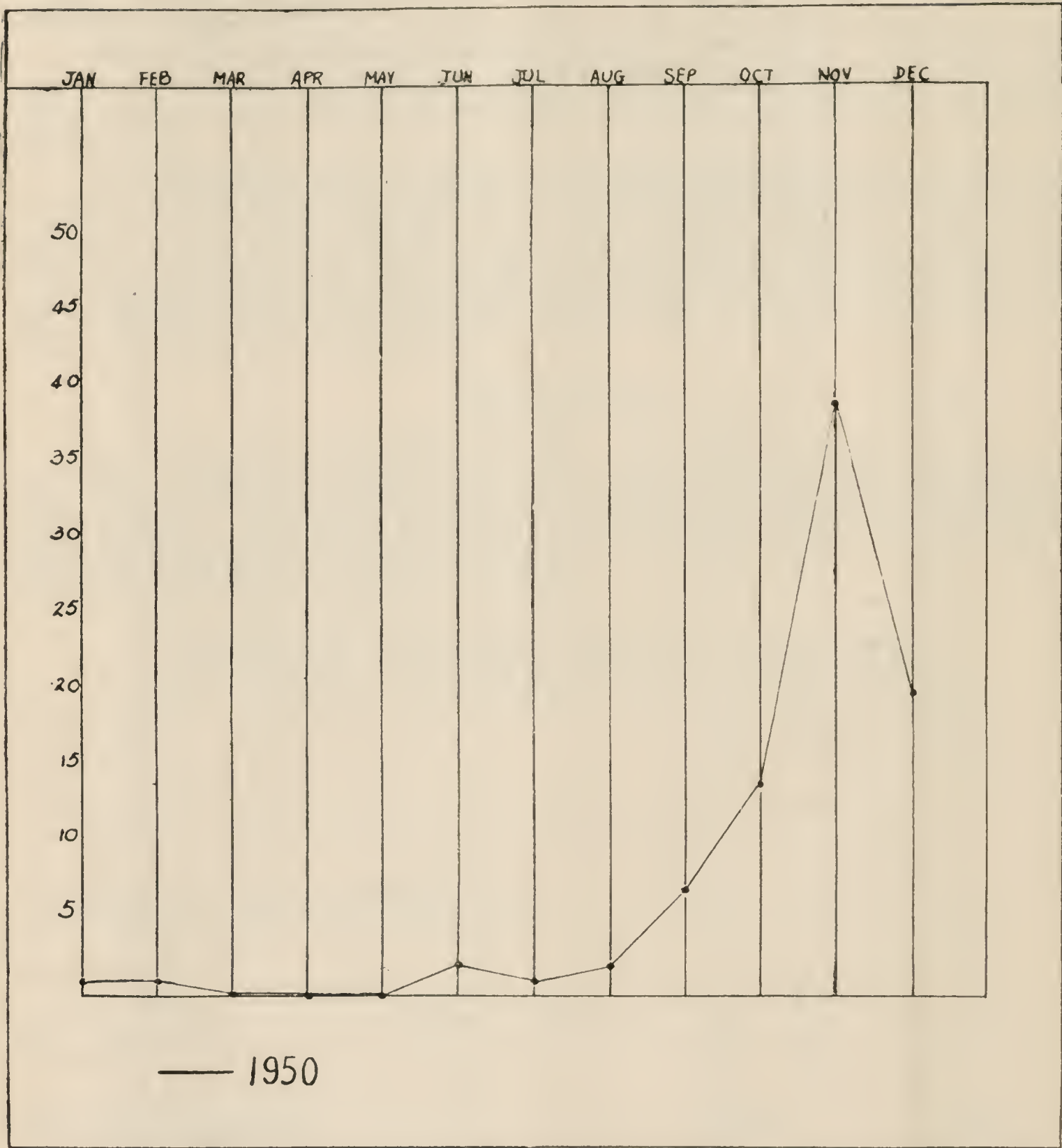
During the year 7 deaths were certified as being due to this disease against 4 in 1949, 3 in 1948 and 6 in 1947.

MUNICIPAL AND IMPORTED CONFIRMED POLIOMYELITIS CASES NOTIFIED IN 1950
BY RACE, SEX AND AGE GROUPS

	0-5 years			5-10 years			10-15 years			15-20 years			20-25 years			25-35 years			35-45 years			45-55 years			Total		
	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.
	F.			F.			F.			F.			F.			F.			F.			F.			F.		
Europeans ..	..	3	3	3	..	3	..	..	..	..	..	..	1	1	2	..	..	..	..	..	..	4	4	8	4	4	8
Eurasians ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1
Chinese ..	27	31	58	2	2	3	2	2	2	2	2	1	..	..	..	..	..	1	1	1	..	31	41	72	31	41	72
Malays ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Indians ..	4	3	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	7	4	3	7
Others ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	32	37	69	5	5	10	2	1	3	2	2	1	1	1	2	..	1	1	1	1	1	40	48	88	40	48	88

16 of the 88 confirmed cases of Poliomyelitis notified within the Municipal Area were non-residents.

ONSET OF ALL (MUNICIPAL AND IMPORTED)
POLIOMYELITIS CASES BY MONTHS



OTHER INFECTIOUS AND PARASITIC DISEASES

Deaths certified during the year as due to some of the non-notifiable infectious and parasitic diseases are given in the table which follows. The 1949 figures are given for comparison.

	1949	1950
Dysentery—Bacillary	9	6
Unspecified	53	29
Amoebic	13	13
Influenza	62	48
Whooping Cough	3	5
Measles	43	4
Encephalitis Lethargica	1	1
Lepto-Spirosis (Weil's Disease)	4	3

The cases of non-notifiable infectious diseases treated at Middleton Hospital during the year were as follows:—

	1950	1949
Measles and Rubella	51	193
Whooping Cough	27	8
Amoebic Dysentery	90	106
Bacillary Dysentery	9	11
Clinical Dysentery	17	..
Diarrhoea and Enteritis	23	29

GENERAL

Medical Inspection of Passengers

The Malayan Federation and Singapore Port Health Authorities issued 1,028 permits to passengers to enter Singapore. These embraced 1,460 passengers of whom 62 of those who failed to report could not be traced.

Houses Quarantined and Disinfected

No houses were quarantined; 792 were disinfected.

Infectious Persons and Contacts

During the year 520 patients suffering from Infectious Diseases were removed to Middleton Hospital and 180 patients suffering from Leprosy were removed to Trafalgar Hospital.

MIDDLETON HOSPITAL

The full report of the Medical Superintendent is appended.

The question of increasing and strengthening the permanent nursing staff at this hospital is one which will have to be gone into seriously in the very near future. Time and again within the last few years, we have had to take on extra temporary staff to enable us to cope with the number and type of cases admitted for treatment.

Four new respirators were purchased during the year. These with the two we had previously make 6 in all now available at the hospital.

Some time during the middle of the year an agreement was reached between the Director of Medical Services and the Municipal Commissioners whereby cases with residual paralysis, as an aftermath of poliomyelitis, are to be retained in the hospital for further treatment. 30 beds have been set aside for the accommodation of such cases. Two Physiotherapists, one from the General Hospital and one temporarily engaged have been made available for the treatment of these cases.

VACCINATION

The races and age groups of the persons vaccinated during the year are shown in the table which follows:—

Nationalities				Under 6 months	6–12 months	1–5 years	Over 5 years	Total
Chinese	..	..	..	14,904	7,400	1,071	590	23,965
Malays	..	..	..	2,506	886	73	40	3,505
Indians	..	..	..	1,263	455	36	24	1,778
Eurasians	..	..	..	174	70	10	8	262
Europeans	..	..	..	47	11	1	7	66
Others	..	..	..	94	57	..	10	161
Total ..				18,988	8,879	1,191	679	29,737

The number of vaccinations carried out by Municipal Vaccinators, Medical men, and Private Vaccinators, and the number returned as successful, modified etc. are shown in the table which follows:—

				Successful	Modified	Failed	Not seen	Total
Municipal Vaccinators	..	..	..	17,224	124	55	707	18,110
Medical men	..	..	..	10,777	..	31	5	10,813
Private and Government Vaccinators				814	..	..	..	814
Total ..				28,815	124	86	712	29,737

VITAL STATISTICS

The Registrar of Statistics' figure for our estimated mid-year population, on which the statistics in this report are based is shown by races in the table which follows:—

ESTIMATED MID-YEAR POPULATION BY RACES, 1950

Malaysians	..	..	..	78,269
Chinese	..	..	..	576,375
Indians and Pakistanis	..	..	..	51,522
Europeans	..	..	..	8,188
Eurasians	..	..	..	8,506
Others ..	..	..	..	7,583
Total ..				730,443

Minor differences will be found between the various rates quoted for 1949 throughout this report, and the rates quoted for that year in my report for the working of the Department for 1949. The reason for these minor differences is given in paragraph (6) of this Report, and the revised rates now given for 1949 are more accurate than those previously quoted, for the reason given.

BIRTHS

The number of births registered during the year was 33,424. The crude birth rate for all races combined was 45.76.

The following is the number of births for each month of the year, the 1949 figures being also shown.

Month	1949	1950	Month	1949	1950
January	2,518	2,831	July	2,595	2,719
February	2,569	2,527	August	2,969	2,762
March	2,600	2,742	September	2,860	2,752
April	2,531	2,687	October	3,061	2,926
May	2,744	2,975	November	3,059	3,011
June	2,698	2,767	December	2,897	2,725
Total ..	15,660	16,529	Total ..	17,441	16,895

The births registered by races were:—

	1949			1950		
	Males	Females	Total	Males	Females	Total
Europeans	99	108	207	118	94	212
Eurasians	174	162	336	163	139	302
Chinese	13,655	12,947	26,602	13,857	12,843	26,700
Malays	1,710	1,584	3,294	1,734	1,674	3,408
Indians	1,245	1,216	2,461	1,322	1,313	2,635
Others	104	97	201	97	70	167
Total ..	16,987	16,114	33,101	17,291	16,133	33,424

The ratio of male to 1,000 female births registered was for the Chinese 1,079, for the Malays 1,036 and for the Indians 1,007.

The birth rate for each race in 1950 and the corresponding rates for 1949 are shown in the table which follows:—

Race	1949	1950
Europeans	26.17	25.89
Eurasians	41.07	35.50
Chinese	47.70	46.32
Malays	43.29	43.54
Indians	48.95	51.14
Others	29.11	22.02
All Races combined	46.81	45.76

DEATHS

The total number of deaths during the year was 9,585 as against 9,136 in 1949. 428 more infants under 1 year of age died during the year than in 1949. The crude death rate for the year was 13.12 per 1,000 of the population compared with 12.92 in 1949.

The excess of births over deaths was 23,839 as against 23,965 in 1949.

THE FOLLOWING RETURN SHOWS THE TOTAL NUMBER OF DEATHS AT DIFFERENT AGE PERIODS IN THE DIFFERENT RACES:—

Nationality	Sex	Under 28 days	28 days to 3 mths.	3-12 mths.	1-2 years	2-3 years	3-4 years	4-5 years	5-10 years	10-15 years	15-20 years	20-25 years	25-35 years	35-45 years	45-55 years	Over 55 years	Un-known	Total
Europeans	M.	..	1	..	..	..	..	..	..	..	..	6	11	5	10	11	..	44 } 58 14
	F.	1	..	2	..	..	1	..	..	..	..	1	2	..	2	5	..	
Eurasians	M.	2	4	5	2	..	1	1	1	..	..	1	..	3	3	13	..	36 } 77 41
	F.	1	2	2	1	2	..	..	1	1	..	2	4	7	2	16	..	
Chinese	M.	418	274	451	245	126	81	45	64	48	71	117	255	478	678	1,009	..	4,360 } 7,567 3,207
	F.	475	305	410	205	119	81	46	63	52	56	83	174	261	274	603	..	
Malays	M.	78	77	120	48	16	24	10	15	7	9	24	50	48	60	89	..	675 } 1,219 544
	F.	68	46	108	37	21	11	10	9	10	13	19	39	43	35	75	..	
Indians	M.	47	22	31	18	7	4	3	4	3	6	15	48	59	69	69	..	405 } 617 212
	F.	34	18	36	17	9	10	2	5	3	8	12	11	20	11	16	..	
Others	M.	2	1	3	..	..	1	..	..	..	..	1	4	3	4	5	..	24 } 47 23
	F.	3	1	1	4	1	..	..	..	..	2	..	2	..	2	6	1	
Total Males	..	547	379	610	313	149	111	59	84	58	86	164	368	596	824	1,196	..	5,544 } 9,585 4,041
Total Females	..	582	372	559	264	152	103	58	78	66	79	117	232	331	326	721	1	
Grand Total	..	1,129	751	1,169	577	301	214	117	162	124	165	281	600	927	1,150	1,917	1	

The following return shows the number of deaths and the death rate for each month of the year:—

Month	Deaths	Death rate	Month	Deaths	Death rate
January	749	12.08	July	848	13.68
February	733	13.09	August	821	13.24
March	779	12.57	September	841	14.02
April	793	13.22	October	826	13.32
May	848	13.68	November	743	12.38
June	830	13.83	December	774	12.48

GENERAL DEATH RATE

The crude death rate for the year was 13.12 per 1,000 living compared with a rate of 12.92 in 1949.

The chief causes of death in 1949 and 1950 and the rate per 1,000 living are set out in the table which follows:—

	1949		1950	
	Cases	Rate per mille	Cases	Rate per mille
Tuberculosis	1,529	2.162	1,449	1.984
Bronchitis and Pneumonia ..	1,508	2.132	1,565	2.143
Diarrhoea and Enteritis	905	1.280	1,048	1.435
Diseases of early infancy	681	.963	764	1.046
Infantile Convulsions (up to 5 years) ..	543	.768	556	.761
Vidence	394	.557	473	.648
Heart Disease	364	.515	444	.608
Old Age	338	.478	365	.500
Cancer	292	.413	344	.471
Nephritis	271	.383	218	.298
Malaria	107	.151	101	.138
Dysenteries	75	.106	48	.066
Diphtheria	53	.075	37	.051
Typhoid	20	.028	24	.033

From the above table it will be seen that in 1950 the death rate from Diarrhoea and Enteritis was considerably higher than in 1949. This is referred to again later on in the report in the section which deals with Infantile Mortality.

The number of deaths and death rates from Beri Beri in the census years 1936, 1947 and in 1950 are shown in the table which follows:—

	INFANTS UNDER 1 YEAR		ALL AGES	
	Deaths	Rate per 1,000 live births	Deaths	Rate per 1,000 living
1936	139	6.657	767	1.565
1947	65	2.128	383	0.568
1950	10	0.299	211	0.289

INFANTILE DEATH RATE

Infantile Mortality by Races 1936—1950

Occupation Period 1942–1945 Omitted.

Year	Europeans	Eurasians	Chinese	Malays	Indians	Others	All Races
1936 ..	26.7	137.4	197.8	219.9	121.0	96.1	191.6
1937 ..	12.2	109.9	172.4	229.9	139.5	72.2	171.9
1938 ..	16.3	58.5	178.9	235.6	128.9	98.9	177.4
1939 ..	39.4	79.6	150.3	188.4	91.6	96.9	147.7
1940 ..	31.9	77.9	162.6	209.9	111.8	104.2	160.7
1941 ..	21.6	48.6	152.5	211.6	102.8	143.6	152.4
1946 ..	28.2	65.5	91.6	140.4	94.9	126.6	96.39
1947 ..	52.0	84.3	93.4	144.1	81.8	109.9	97.6
1948 ..	28.0	45.3	83.9	163.1	80.0	67.0	90.10
1949 ..	19.3	38.7	74.3	122.7	82.1	109.5	79.18
1950 ..	18.9	53.0	87.4	145.8	71.3	65.9	91.22

As will be seen from the above table our infantile mortality rate for the year, 91.22, is the highest rate which we have had since 1947. The marked rise shown in the rate for the year is most disappointing. I understand that there was a similar marked rise in the infantile mortality rates for the year throughout the whole of Malaya.

WITH THE COMPLIMENTS

OF THE

CITY HEALTH OFFICER
CITY COUNCIL
SINGAPORE.

P.S.

Reports for 1948, 1951 and 1952 will be
forwarded when printed.

The main causes of death in infants and the rate per 1,000 live births for each disease in 1950 and 1949 are set out in the table which follows:—

	1950		1949	
	Cases	Rate per mille	Cases	Rate per mille
Convulsions	466	13.942	418	12.628
Bronchitis and Pneumonia ..	711	21.272	563	17.009
Diseases of early infancy ..	764	22.858	681	20.573
Diarrhoea and Enteritis ..	683	20.434	582	17.583
Tetanus	26	.778	35	1.057
Beri-beri	10	.299	32	.967
Congenital Syphilis ..	23	.688	24	.725
Total ..	2,683	80.272	2,335	70.542

The figures in the above table show that the infant death rates from Diarrhoea and Enteritis, Bronchitis and the Pneumonias, Diseases of early infancy and 'Convulsions' in 1950 were considerably higher than in 1949 and that the converse was true in the case of Beri-beri.

The deaths certified as due to Whooping Cough and Measles and their complications in 1950 and 1949 are shown in the table which follows:—

					DEATHS FROM	
					Whooping Cough and complications	Measles and complications
1950 .. .. .	..	..	..	..	5	4
1949 .. .. .	..	..	..	..	3	43

Whooping Cough was known to have been more prevalent than in the preceding year but the figures shown in the above table do not help to explain why our infantile mortality rate for the year was so much higher than that for 1949.

NEO-NATAL RATES BY RACE AND SEX (1948-50)

				1950			1949			1948		
				Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes
Europeans ..	..	..	..	..	10.64	4.72	10.10	18.52	14.49	14.49	26.79	20.00
Eurasians ..	..	..	..	12.27	7.19	9.93	22.99	6.17	14.88	33.90	6.49	21.15
Chinese ..	..	..	..	30.17	36.99	33.45	27.46	32.34	29.85	34.31	35.67	34.97
Malays ..	..	..	..	44.98	40.62	42.84	38.01	29.04	33.70	70.83	40.66	56.26
Indians ..	..	..	..	35.55	25.89	30.74	35.34	42.76	39.01	36.49	33.97	35.23
Others ..	..	..	..	20.62	42.86	29.94	28.85	72.16	49.75	41.24	51.55	46.39
Total ..	..	..	..	31.64	36.08	33.78	28.96	32.70	30.78	37.75	35.76	36.79

The chief causes of the neonatal deaths in infants in 1950 and 1949 are shown in the table which follows:—

Diseases	1950		1949	
	No. of cases	% Total Neo-natal Deaths	No. of cases	% Total Neo-natal Deaths
1. Premature Birth	504	44.64	413	40.53
2. Congenital Debility	50	4.43	97	9.52
3. Infantile Convulsions	92	8.15	82	8.05
4. Atelectasis	56	4.96	67	6.58
5. Diarrhoea and Enteritis	135	11.96	100	9.81
6. Tetanus	21	1.86	33	3.24
7. Bronchitis and Penumonia	93	8.24	75	7.36
8. Congenital Mal-formations	34	3.01	28	2.75
9. Ieterus Neonatorum	27	2.39	26	2.55
10. Injury at Birth	46	4.07	40	3.93
11. Beri-beri	3	.27	7	.69
12. Undefined or unstated causes	11	.97	11	1.08
13. Congenital Syphilis	7	.62	5	.49
14. Diseases of Umbilicus	4	.35	6	.59
15. Septicaemia and Pyaemia	11	.97	4	.39
16. Other Diseases included under 161 (c)	6	.53	4	.39
17. Other Diseases	29	2.57	21	2.06
Total ..	1,129	100.00	1,019	100.00

The table which follows shows the number of births by race and sex that occurred at the Government Maternity Hospital in 1950 and also the percentage of the total registered births of each race born at this hospital:—

	1950			Percentage of total births registered by race born at the Government Hospital	
	Males	Females	Both Sexes	1950	1949
Chinese	5,326	5,073	10,399	38.95	34.40
Indians	641	631	1,272	48.27	45.88
Malays	76	49	125	3.67	3.13
Europeans	91	63	154	72.64	70.53
Eurasians	73	49	122	40.40	39.29
Others	10	8	18	10.78	16.42
All Races ..	6,217	5,873	12,090	..	..

1950 INFANTILE MORTALITY BY RACE, SEX AND AGE GROUP

	EUROPEANS		EURASIANS		CHINESE		MALAYS		INDIANS		OTHERS		TOTAL ALL RACES	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-1 day ..	..	1	1	1	87	63	21	21	11	18	..	3	120	107
1-7 days ..	..	..	1	..	153	120	25	27	24	7	1	..	204	154
1-4 weeks ..	..	..	..	..	178	292	32	20	12	9	1	..	223	321
0-4 weeks ..	..	1	2	1	418	475	78	68	47	34	2	3	547	582
4 weeks-3 months ..	1	..	4	2	274	305	77	46	22	18	1	1	379	372
3-6 months ..	..	1	1	1	181	173	52	47	14	19	..	..	248	241
6-9 months ..	..	1	2	1	158	125	40	37	12	13	3	..	215	177
9-12 months ..	..	..	2	..	112	112	28	24	5	4	..	1	147	141
0-12 months ..	1	3	11	5	1,143	1,190	275	222	100	88	6	5	1,536	1,513

The percentage of the total births registered by races is shown in the table which follows:—

Year	Total Births	Chinese	Malays	Indians	Other Races	% of Total Births			Other Races
						Chinese	Malays	Indians	
1911	5,560	3,750	1,051	406	353	67.4	18.8	7.3	7.52
1921	10,237	7,789	1,270	640	538	76.0	12.4	6.2	5.26
1931	16,488	13,229	1,758	917	584	80.23	10.66	5.56	3.54
1936	20,878	17,093	1,842	1,314	629	81.87	8.82	6.29	3.01
1947	30,548	24,247	3,233	2,323	745	79.3	10.5	7.6	2.44
1948	32,074	25,996	3,004	2,299	775	81.1	9.4	7.2	2.4
1949	33,101	26,602	3,294	2,461	744	80.4	10.0	7.4	2.2
1950	33,424	26,700	3,408	2,635	681	79.88	10.20	7.88	2.04

The still births registered in 1950 and 1949 are shown in the table which follows:—

	1950			1949		
	Male	Female	Total	Male	Female	Total
Europeans	2	4	6	3	2	5
Eurasians	5	2	7	7	5	12
Chinese	236	225	461	255	203	458
Malays	47	42	89	52	40	92
Indians	47	37	84	36	48	84
Others	1	3	4	2	2	4
Total	338	313	651	355	300	655

The still birth rate per 1,000 total births of all races was 19.10 as against 19.78 in 1949.

CERTIFICATION OF DEATHS, 1950

The following return shows the number of deaths in the various races, the causes of which were certified by Medical Practitioners, Registrars (who certify the cause of death from the history obtained from relatives) and the Coroner:—

	Europeans	Eurasians	Chinese	Malays	Indians	Others	Total
Medical Practitioners ..	31	66	4,762	397	361	28	5,645
Registrars ..	1	5	2,077	765	169	7	3,024
Coroner ..	26	6	728	57	87	12	916
Total ..	58	77	7,567	1,219	617	47	9,585

In the table which follows are shown the percentage number of deaths the causes of which were certified by Medical Practitioners, Inspecting Registrars and the Coroner, in the pre-war years 1939—1941 and the postwar years 1946—1950:—

		1939	1940	1941	1946	1947	1948	1949	1950
Medical Practitioners	..	69.0	68.7	68.9	57.16	58.48	60.22	59.81	58.89
Registrars	..	25.0	25.2	25.0	33.82	33.14	31.92	31.85	31.55
Coroner	..	6.0	6.1	6.1	9.02	8.39	7.86	8.34	9.56

ANALYTICAL AND BACTERIOLOGICAL LABORATORIES

Both reports are appended.

ANTI-MOSQUITO WORK

Dr. Morrison's report on the working of the Anti-Mosquito Department is appended.

The death rates from malaria during the year and in the other years since the reoccupation have been extraordinarily low compared with the lowest rates recorded for any of the years prior to the war. For instance, the death rates from this disease in the census years 1931 and 1936 were 1.236 and 1.071 respectively as against a rate of 0.138 in 1950, 0.151 in 1949, 0.223 in 1948, and 0.378 in the census year 1947.

There is nothing of outstanding importance to comment on in connection with the work of this Department during the year.

Good progress was made during the year with the construction of new works and the consolidation of existing ones notwithstanding the fact that the labour force engaged on such works was somewhat depleted because of our having to divert more and more men daily to work on the clearing and removal of refuse from the lower reaches of some of our old anti-malarial drains which now function as sullage drains far more than as anti-malarial drains.

The question of our having to divert more and more of our Anti-Mosquito labour force to work on the daily clearing and removal of refuse from those anti-malarial drains which now function for the best part as sullage drains and also that of our having to divert some of the men from our Kampong Sanitation Squad daily to carry out similar type of work in Kampongs which have been dealt with, are now being gone into with the Town Cleansing Department. Until this type of work is taken over by the Town Cleansing Department the progress made by both the Kampong Sanitation Squad and the Anti-Mosquito Department must necessarily become slowed down more and more.

SUPERVISION OF MIDWIVES AND INFANT WELFARE

The report of the Acting Senior Assistant Health Officer (Infant Welfare) is appended.

During the year, because of the absence on leave and later the resignation of one lady medical officer, the prolonged absence on sick leave of the Senior Assistant Lady Health Officer and, for a shorter period, of the First Assistant Lady Health Officer and in the latter portion of the year the temporary loss of the services of some of the Health Visitors who had to be temporarily transferred to the Middleton Hospital because of the nursing shortage during the Poliomyelitis outbreak, the work of the Infant Welfare Department was seriously handicapped by shortage of staff, especially towards the close of the year.

16,069 new infants were seen at the Clinics in the course of the year and 86,688 consultations in all were given to them.

The total number of home visits made by the Health Visitors was 82,471.

2,936 ante-natal mothers were seen and 9,334 consultations were given to them at the clinics during the year.

The Municipal Midwives conducted 1,662 confinements and attended 778 mothers who had given birth to infants without skilled attention at the time. These midwives paid 14,024 visits in all to confinement cases.

The number of mothers visited by the Staff Nurses shortly after delivery was 20,716. 1,998 repeat visits were paid to these mothers.

The Maternal death rate and the Puerperal Sepsis death rate per 1,000 live and still births were 1.90 and 0.117 respectively. It is difficult to believe that these rates, which are incredibly low, give anything like a true picture of what the mortality rates really are from these causes.

ANTI-DIPHTHERIA IMMUNISATION

During the year 9,401 infants and toddlers received a full immunisation course against Diphtheria as against 5,578 in 1949.

FOOD AND MARKETS

The report of the Market Inspector is appended.

10,523,191 katis of fresh fish were landed and auctioned at the markets during the year as against 10,622,377 the previous year.

In the markets approximately 163 tons of unsound fresh foodstuffs, 5,078 head of poultry and 59,905 eggs were seized or surrendered and destroyed at the Municipal Incinerator.

FOOD SHOPS, ETC.

The licences issued during the year were as follows:—

Eating Houses	..	..	1,044
Restaurants	..	..	100
Coffee Shops	..	..	155
Soda Fountains	..	..	22
Meat and Fish Shops	..	..	106
Bakeries	..	..	26
Cake Shops	..	..	34
Biscuit Factories	..	..	5
Aerated Water Factories	..	..	10
Milk Vendors	..	..	90
Iced Water and Cold Drinks	..	..	49
Food Shops	..	..	21
Margarine Factories	..	..	2
Syrup making	..	..	3
Sweet making	..	..	10
Fruit Drink Factory	..	..	1
Dairy Shop	..	..	3
Ice Popsicle Factory	..	..	1
Ice Cream Factories	..	..	2
Food Caterer	..	..	21
Confectionery	..	..	1
Possession of wild boar flesh	..	..	8

The licence fees amounted to \$76,284.00.

These licensed premises were all regularly inspected by the District Sanitary Inspectors.

PLACES OF PUBLIC RESORT

Theatres, Hotels, Public Houses, Schools, Printing Presses, etc. were regularly inspected and the necessary reports submitted at the request of the several Licensing Authorities.

SLAUGHTER HOUSES

During the year 321,065 animals were slaughtered in the Municipal Abattoirs as against 346,495 in 1949.

The number of the various types of animals slaughtered during the year, in the preceding year and in 1941 are shown in the table which follows:—

			1941	1949	1950
Pigs	..	..	309,719	281,038	263,073
Sheep	..	..	39,366	58,666	50,047
Goats	..	..	8,275	2,860	2,821
Oxen	..	..	17,088	3,602	4,303
Buffaloes	..	..	164	318	810
Horses	..	..	..	11	11

From the above table it will be seen that in 1950 less pigs and sheep were slaughtered at the abattoirs than in 1949.

The decrease in the number of sheep slaughtered in 1950 as against 1949 is easily explained. Fewer sheep were exported from Australia in 1950 because of the boom in wool.

Following on the implementation of the agreement made between the Rural Board and the Municipal Commissioners whereby butchers in the Rural Area were to slaughter all their pigs at the Municipal Abattoir as from 1st January 1950, one would have expected that many more pigs would have been slaughtered at the abattoir in 1950 than in previous years, but such was not the case.

There are probably several explanations for this. One is that the number of pigs which must be slaughtered to produce a given quantity of pork will depend on the type of pigs slaughtered. For instance, the average Bali pig weighs 90 katis, the average local pig 45 katis.

The number of local and Bali pigs slaughtered at the Abattoir in 1949 and 1950 and the approximate weight of pork produced from these pigs is shown in the table which follows:—

			1949		1950	
			Number of pigs slaughtered	Approximate weight in katis	Number of pigs slaughtered	Approximate weight in katis
Local pigs	..	..	280,639	12,628,755	239,536	10,779,120
Bali pigs	..	..	399	35,910	23,537	2,118,330
Total number of pigs slaughtered			281,038	..	263,073	..
Approximate weight (in katis) of pork slaughtered	..	..	..	12,664,665	..	12,897,450

From the above table it will be seen that though fewer pigs were slaughtered in 1950 than in 1949, slightly more pork was made available for the local market in 1950 than in 1949.

In addition to the explanation given above there were probably other factors which also played a part in causing the reduction in the number of pigs slaughtered during the year as against 1949.

For instance, we have good reason to believe that during the year there was a considerable increase in the number of pigs slaughtered 'illegally' outside the abattoir.

A further contributing factor may have been that fewer pigs were imported from the Federation in 1950 than heretofore. I am informed that whereas in the past the price obtained for pigs was always higher in Singapore than in the Federation the converse was the case in 1950 and especially so towards the close of the year.

The number of pigs slaughtered at the abattoir each month by butchers from the Rural Area is shown in the table which follows:—

					Number slaughtered	Average number slaughtered per day
January	..	..	..	..	2,594	83.6
February	..	..	..	..	1,991	71.1
March	..	..	..	..	1,971	64.4
April	..	..	..	..	1,422	48.0
May	..	..	..	..	914	28.4
June	..	..	..	..	634	21.1
July	..	..	..	..	319	10.2
August	..	..	..	..	246	7.9
September	..	..	..	..	123	4.1
October	..	..	..	..	142	4.6
November	..	..	..	..	127	4.2
December	..	..	..	..	120	3.9

As will be seen from the above table the average number of pigs slaughtered each day by Rural Board butchers dropped from an average of 83.6 per day in January to 3.9 in December.

During the year 142 carcasses were totally condemned at the abattoir, 80 being swine, 10 oxen, 16 sheep and 4 being goats.

The chilling rooms at the pig abattoir were closed down on 31st May and as from that date fresh unchilled pork has been released to the butchers, inspection having taken place in the early hours of the morning. This only became possible because of our having found out by experiments, carried out previously, which showed that the light emitted by a particular type of fluorescent lamp could be used as an effective substitute for daylight for the inspection of carcasses. Prior to 31st May pig carcasses had to be preserved in chilling rooms from the time when they had been inspected in daylight, until early the following morning when the butchers required them for the market.

Throughout the greater portion of the year only very little effective action could be taken to discourage the 'illegal' slaughter of pork or the sale of pork which had been 'illegally' slaughtered. The 'no action' policy against hawkers which came into force early in the year, and certain legal snags encountered in cases taken against persons for slaughtering pork 'illegally' or selling 'illegally' slaughtered pork made effective deterrent action well nigh impossible.

New legislation is now being sought, which, if approved, should enable effective deterrent action being taken against persons who slaughter pork 'illegally' or sell 'illegally' slaughtered pork.

Although the pig abattoir is located in what was one of the most dangerous areas during the civil disturbances in December, the staff all reported for duty and this essential work continued without interruption.

OFFENSIVE TRADES

383 licences, 294 of these for laundries were issued during the year, the fees collected being \$11,929. All these licensed premises were subject to the usual routine inspections.

Towards the close of 1950 the Municipal Commissioners implemented their previous decision to control by licensing all premises used for the refining of precious metals by the acid process.

It was decided that during the present emergency, in order to obviate causing hardship to genuine old established businesses that, in general, temporary licences would be granted for the premises in which these old established businesses had been carrying on their trade for many years even though such premises were not sited in an industrial area. Such temporary licences would only be issued for premises:—

- (a) where the trade is carried on upon a large scale and genuine efforts have been made to abate any nuisance from nitrous fumes by either washing, chemical neutralisation controlled production, etc. and where a satisfactory measure of success has been achieved; and also
- (b) where the trade is carried on upon a small scale by skilled operators in such a way that no nuisance results;

and subject to such licences being endorsed to the effect that they will be cancelled if any nuisance is caused.

It was further decided that no new applications for licences to refine precious metals by the acid process would be approved in respect of premises which were not located in any of the recognised industrial areas.

The implementation of this important decision, as well as providing a measure of protection for the general public against nuisance from fumes, ensures that the workers employed in this industry work in as healthy an environment as can be achieved in the circumstances.

BURIAL GROUNDS

The number of deaths registered within the Municipal Area and the number of burials and cremations carried out during the year in cemeteries within the Municipal Area and in the Municipal Cemeteries at Choa Chu Kang were as follows:—

	Deaths registered within Municipal Area	Burials and cremations made in Municipal Cemeteries and licensed burial grounds within the —Municipal Area
Europeans ..	58	84
Eurasians ..	77	83
Chinese ..	7,567	4,863
Malays ..	1,219	1,207
Indians ..	617	768 (including 134 cremations)
Others ..	47	53
Total ..	9,585	7,058

5,692 of these 7,058 burials and cremations took place in the Municipal Cemeteries.

There were 6,320 exhumations carried out during the year under the supervision of the Burial Grounds Inspector. Most of these exhumations (6,216) were carried out at the Teochew Cemetery Balestier Road. This cemetery was recently acquired by Government for the extension of the Tan Tock Seng Hospital.

STAFF

Appointments

Dr. Cheah Seng Kee was appointed Supernumerary Assistant Health Officer, with effect from 1st August, 1950.

Mr. Lim Chin Kuan was appointed as an Understudy Deputy Municipal Analyst, with effect from 1st September, 1950.

Dr. John Cameron was appointed Assistant Health Officer, with effect from 1st October, 1950.

Dr. Daisy Lee was appointed as Temporary Part-time Lady Medical Officer, with effect from 1st December, 1950.

Leave

The writer proceeded on home leave on 21st April, 1950 and resumed duty on 29th December, 1950.

Resignations

Dr. T. A. M. Oehlers, Assistant Lady Medical Officer, Infant Welfare Department, who went to the United Kingdom on long leave on 10th March, 1950 resigned from the Municipal Service, with effect from 31st May, 1950.

Mrs. Joyce Love, Supervisor of Midwives, resigned from the Municipal Service and was granted 3 months leave, with effect from 17th June, 1950.

Retirements

Dr. Lee Lian Hoe, Inspecting Officer Registration of Births and Deaths Department, retired from the Municipal Service on 24th November, 1950.

Mr. H. J. Benjafield O.B.E., Supernumerary Officer Anti-Mosquito Department, went on long leave prior to retirement on 1st July, 1950.

Mr. C. A. de Souza, Senior Sanitary Inspector, retired from the Municipal Service, with effect from 17th April, 1950.

Death

Dr. R. C. Oehlers, Assistant Health Officer, passed away on 7th May, 1950.

Diploma of Royal Sanitary Institute

During the year Messrs. F. X. Poothamby, Arthur Lee and C. Hogan attended the Royal Sanitary Institute Course and obtained the Diploma.

Promotions

Mr. J. L. da Silva, Acting Superintendent Abattoirs, was promoted to the post of Superintendent, with effect from 26th April, 1950.

Mr. L. A. Marcus, Sanitary Inspector, was promoted to the post of Divisional Sanitary Inspector, with effect from 1st April, 1950.

Mrs. Betty F. S. Tan, Sister, was promoted to the post of Senior Sister, Infant Welfare Department, with retrospective effect from 1st October, 1949.

Scholarships

Mrs. Piong Eu Moi, Sister, Infant Welfare Department, who was awarded a U.N.I.C.E.F. Scholarship left Singapore for the United Kingdom on 19th April, 1950. She passed Part I of the C.M.B. examination in November 1950 and is now attending Part II of the Course.

Health of Staff

Particulars of the attendances at the Municipal Dispensaries in 1950 and in the preceding year are given in the following table:—

	1950			1949 Total
	Main Disp.	Lorong Lalat	Total	
Number of cases attended to	12,420	21,193	33,613	24,231
Number sent to Hospitals and Clinics ..	499	252	751	787
Number of dressings done	12,899	17,804	30,703	20,802
Number examined for physical fitness ..	1,107	394	1,501	1,824
Number of visits paid to homes by M.O. i/c Staff	29	6	35	39
Number of patients treated by Private Practitioners	2,444	42	2,486	2,130
Number of days leave granted	37,998½	61,203	99,201½	67,927
Total number of attendances at dispensaries ..	28,192	42,247	70,439	47,737
Average number of open vote employees plus approximate number of Junior Staff eligible for treatment at Municipal Dispensaries during the year:—				
(a) Open Vote employees .. ..	..	..	8,390	8,197
(b) Junior Staff approximately .. ..	..	..	2,248	2,248
			10,638	10,445
Average number of days sick leave granted per person to employees eligible for treatment at Municipal Dispensaries				
	..	..	9.3	6.5

The chief causes of sickness in employees attending the dispensaries during the year were:—

	Cases
Influenza	11,749
Disease of Respiratory System ..	3,324
Disease of Digestive System ..	2,601
Disease of Skin and Cellular Tissue ..	4,599
Accidents and Injuries ..	4,301
Pyrexia of unknown origin ..	2,250

During the year there were 15 primary attacks of Malaria and 4 cases of relapse in Municipal employees. 1,923 blood films taken from employees were examined for malarial parasites—19 were positive.

During 1950, 12,348 daily paid staff were treated for various injuries received in the normal course of their duties.

GENERAL

On 15th April, 1950 a Hawkers Inquiry Commission was appointed by H. E. The Governor. The Commission was instructed to make a diligent and full enquiry into the following matters namely:—

‘All aspects of hawking with particular emphasis on the social, economic and health aspects having regard to the interests of the public and of the hawkers.’

The Commission was instructed to render a report to H. E. after completing its enquiry and to make such recommendations for short and long term policy concerning hawkers in Singapore as it might think necessary.

The report of the Inquiry Commission was published towards the close of the year and is now under consideration by Government.

During the year the experimental ‘Kampong Sanitation Squad’ which started work in 1949 in Mukim I in the Tiong Bahru Kampong Silat Area completed all the work that could usefully be done in the area and then similar type work was carried out and completed in the Kampong Alexandra and Kampong Amber Areas. Just before the close of the year the ‘squad’ commenced work in Geylang Serai. The work carried out in these Kampongs during the year included the construction of 7,116 feet of concrete channel sullage drains.

Two points emerge from the experimental Kampong Sanitation work carried out todate.

One is that the degree of improvement in sanitation, including drainage, which can be attained in congested kampongs such as Kampong Silat is far less satisfactory than that which can be attained in the less congested kampongs such as Kampong Geylang Serai.

The other point is that the progress being made by the Kampong Sanitation squad must necessarily become less and less as more and more Kampongs are dealt with because of our having to divert more and more of our labour force to work on the daily cleansing and removal of refuse from the newly laid drains in the Kampongs and the daily removal of refuse from the Kampong houses etc. to the Town Cleansing Department Bin Centres. Unless or until the Town Cleansing Department undertakes this work we will have to divert more and more men on to such work otherwise serious nuisances are bound to arise and the Kampongs which have been dealt with by the Kampong Sanitation Squad will rapidly revert to their former insanitary condition.

There were 2,854 notices including 639 Intimations served during the year. Of these and 106 outstanding notices carried forward from the previous year 2,522 were complied with, 52 were cancelled and 280 carried forward to the following year.

The Sanitary Inspectors paid 57,955 visits of inspection during the year. 1,109 of these visits entailing the interview of 1,351 families were made to collect certain information for the ‘Attaps Committee’ which was set up by the Municipal Commissioners in the course of the year.

The collection of data for the Hawkers Inquiry Commission concerning the preparation and storage of foodstuffs by hawkers and the cleanliness or otherwise of the materials used by them, etc., etc. necessitated many special visits to premises occupied by hawkers to collect the data required.

There were 966 prosecutions with 866 convictions during the year. The fines imposed amounted to \$21,584. 14 prosecutions were withdrawn and 88 summonses could not be served.

395 samples of various foodstuffs and drugs were taken for examination during the year.

The following reports and returns are appended:—

Anti-Mosquito Report.
Report of the Analyst.
Report of the Bacteriologist.
Report of the Infant Welfare Department.
Report of the Superintendent Middleton Hospital.
Report of the Market Inspector.
Report of the Superintendent Abattoirs.
Chief Sanitary Inspector's returns.

I conclude by recording my grateful thanks to all members of the Department, both Senior and Subordinate, for their continued loyal support.

N. A. CANTON, M.B., CH.B., B.A.O., D.P.H.,
Municipal Health Officer.

